

COMMERCIAL / INDUSTRIAL

WRAP-AROUND
DEHUMIDIFIER
HEAT PIPES



HP Heat Pipe
Technology, Inc.

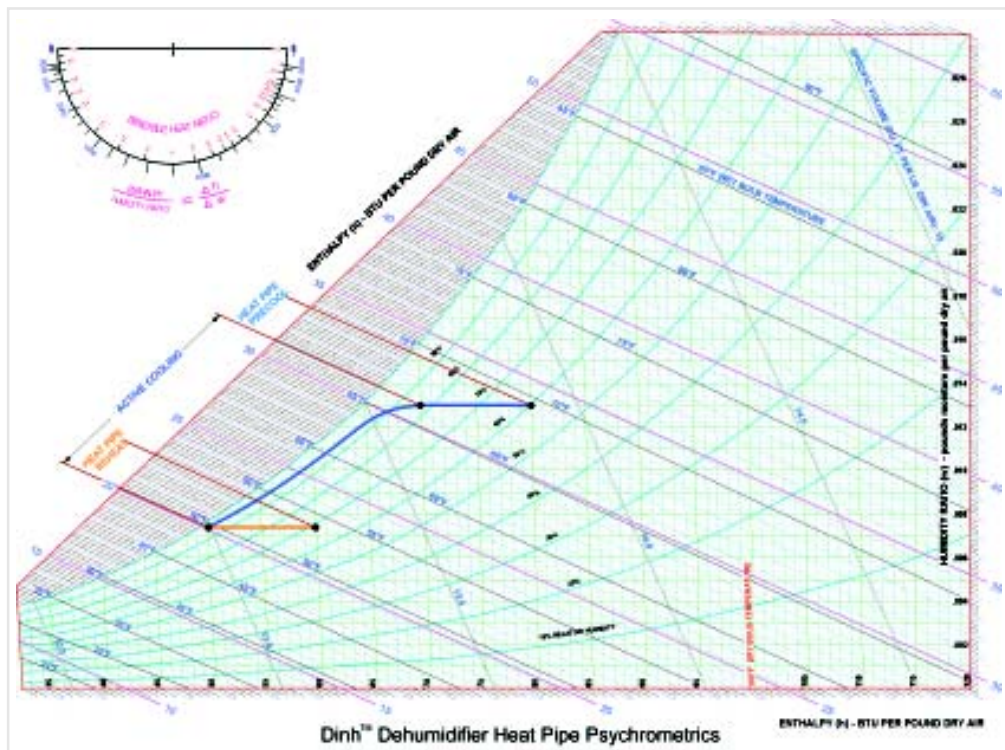
The Most Cost Effective Method of Dehumidification.

Transforming Your HVAC System Into a Powerful Dehumidifier with Heat Pipe Technology.

WHAT ARE DINH™ DEHUMIDIFIER HEAT PIPES?

Dinh™ Dehumidifier Heat Pipes are thermal transfer devices capable of moving large amounts of heat from the return air stream to the supply air stream of any AC system. Typically, they are charged with a working fluid (usually R-22 or R-134a). Because heat pipes move heat with a process of vaporization and condensation, no mechanical parts or energy is needed.

Dinh™ Dehumidifier Heat Pipes consist of two sections. The first section is placed in the incoming air stream before the AC cooling coil. When warm air passes over the first section, the liquid refrigerant vaporizes, moving heat to the second section, placed downstream from the cooling coil. Because heat has been removed from the air before entering the evaporator coil, air passing through the cooling coil drops to a lower temperature, resulting in more condensate removal. The overcooled air is then reheated to a comfortable temperature and a lower relative humidity by the second section, using the same heat originally absorbed by the first section.



THE BENEFITS TO YOUR AC SYSTEM

Amazingly, this entire process of precool and reheat is accomplished with no energy due to the passive nature of the heat pipe. The result is an air conditioning system with the ability to **remove 50 to 100% more moisture** than before, while **free reheat** is obtained for **healthy air**.

In most cases, this dehumidification effect is more than enough to negate the need for any additional humidity control.



When fresh air is introduced, the heat pipes are of tremendous benefit in reducing the moisture load before it can become a burden on the building. Not only do the heat pipes drastically reduce humidity, the fresh air is freely reheated to a comfortable temperature. With heat pipes, a fresh air make up AC unit delivers ASHRAE recommended conditions at half the energy cost of a conventional system using active reheat.

Dinh™ Dehumidifier Heat Pipes by Heat Pipe Technology, Inc. are the most efficient method of dehumidification available today. Since widespread HVAC applications of heat pipes began in the mid-1980s, thousands of systems are now operating in the field. From hotels and restaurants to schools and manufacturing facilities, our high quality copper heat pipes have proven to be the best solution for humidity-related problems.

Dehumidifier Heat Pipes in any HVAC System

Custom Wrap-Around Heat Pipes

Retrofit Designs

Heat Pipes can be installed on almost any AC unit or air handler, whether in our factory or done on site with a field crew. Years of experience have made us familiar with almost all equipment lines and the specific requirements for each. As a result, installations in the field are done with minimal down time and highest quality.

Because heat pipes are passive and powered by difference of air temperatures, they do not interfere with the existing circuiting of the system.



U-framed Heat Pipes

Made to Fit Wrap Around Design

These “U-framed” dehumidifier heat pipes are completely finished, charged and ready to be placed as a fitted component in the air handler. When the configuration and specifications of the system are acceptable for the slide in design, this often provides the simplest and most cost effective method of installation.



Drop-In Combo Coil

Ideal for OEM/Coil Replacement

The combo coil is a patented all-in-one replacement for standard cooling coils. A complete cooling coil circuited with integral heat pipes is a practical application both in the field and at the point of manufacturing. Available for both DX and chilled water, the combo is a cost effective method of applying advanced dehumidification technology to standard product lines.

A relatively new method of heat pipe application, the Combo Coil is already recognized as a major technological achievement in the HVAC industry.



■ Low pressure drop of 0.7" H₂O for a full 40% Effectiveness and 8°F of FREE reheat!

What Others Say . . .

Virtually
Maintenance
Free.

"In addition to costing less to buy and install, other advantages are that they eliminate the need for reheat or desiccant systems, require no mechanical or electrical input, are virtually maintenance free, provide lower operating costs and last a very long time..."

From [Edison Electric Institute's](#)
" [Heat Pipes: Your Answer to Cooling and Humidity Problems.](#) "



Saves Money.

"We 're saving \$15,000 per year on a \$7,000 investment...Any money we can save on our utility bills is money we can use to improve our school."

Mark Gordon, Director of Facilities
[St. John's River Community College](#) - Palatka, Florida

Competitive
Performance.

"Heat pipe enhanced air conditioners are competitive with gas desiccant systems from a performance standpoint, and are considerably less expensive to buy and maintain."

From [Georgia Power Company's](#)
" [Heat Pipes: An Alternative to Gas Desiccant Systems for Supermakrets.](#) "

Greatly
Increases
Moisture
Removal.

"It took twenty and one-half days to take out 55,900 gallons of water. That's enough to fill our smaller swimming pool."

John Steele,
Director of Property Operations
[The Hilton](#) at Lake Buena Vista, Florida



"Heat pipes greatly increase the moisture removal capabilities of an air conditioning system, typically from 50% to 100%. Savings on your energy bills are realized from eliminating the need to overcool then reheat the same air...Heat pipes are the economical and environmental technology of choice for efficient dehumidification."

From [Virginia Power's](#)
" [Heat Pipes, A Dehumidification Enhancement.](#) "

 **Heat Pipe
Technology, Inc.**

"Advancing the Science of Dehumidification Since 1983."

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